

Before the
Federal Communications Commission
Washington DC 20554

In the matter of)
)
Amendment to the Commission's Rules) PR Docket 92-257
Concerning Maritime Communications) RM-7956,8031,8352

To: Secretary
Federal Communications Commission
1919 M. Street
Washington DC 20554

Petition for Reconsideration

Fred Daniel, d/b/a/ Orion Telecom ("Orion") respectfully files this Petition for Reconsideration with regard to the Commissions Third Report and Order and Memorandum of Opinion and Order ("3rd Report").

While Orion welcomes the structural changes adopted by the Commission in the 3rd Report, Orion would ask the Commission to reconsider the co-channel interference protection standard as provided for in Section 80.773 of the Rules, particularly as it applies to automated systems.

I. Background

Section 80.773 of the Rules, which specify a 12 dB desired to undesired signal strength standard, while having proved marginally sufficient for manual voice system operation, may not be adequate for fully automatic systems utilizing data signaling, as permitted under the Second Report¹, particularly in light of the wide area geographic licensing proposals set forth in the 3rd Report.

Co-channel interference is the single most destructive element in fully automated systems. In manual systems the mobile operator can in almost all cases determine whether a transmission is intended for him, even in the presence of multiple signals. The human ear and mind is significantly

¹ Second Report and Order *Amendment of the Commission's Rules Concerning Maritime Communications*, Adopted June 17, 1997

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more adept, than even the most advanced automated technology, in filtering our desired from undesired information. Unlike humans, automated systems are not so adept , and so are unable to make fine grained subjective decision as to whether a signal is desired or undesired -- it is simply just another received signal. The subscriber interprets the results of this interference as poor, or worse yet, unreliable system operation.

II. Discussion

All fully automated systems, regardless of signaling format and particularly if they employ data signaling and automatic channel selection , will be adversely affected by the adoption of an inadequate co-channel interference standard.

Our own field experience as an AMTS CMRS operator, using a fully automated system at 216-220 Mhz, has shown that the 12 dB standard is inadequate. Even taking into account that Orion is the exclusive licensee for large coastal areas, and thus we may have better control over co-channel interference..

The Commission has dealt with similar co-channel interference issues previously. A case in point is Part 90 automated services at 800 Mhz.² Motorola, as one of the commenters, made representations regarding their automated trunking system technology, that the separation standards proposed by the Commission to permit fully automated systems at 800 Mhz were inadequate. Their own field tests had shown that interference protection in the range of 14-17 dB was required to insure proper system protection and operation. In this instance the Commission adopted an interference standard for desired to undesired signal of 18 dB for 800 Mhz automated SMR services.

Given the propagation characteristics of the VHF band (156-162 Mhz) as compared to 800 MHz, a 12dB wanted to unwanted standard will be inadequate, and co-channel interference will most likely occur. Such co-channel inference will result in system degradation, and will directly and adversely affect the ability of Public Coast stations, be they incumbents or new geographic licensees, to meet their responsibility to provide quality services to the public.

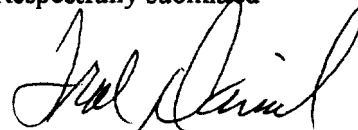
² Ref. Report and Order PR Docket No. 93-60 Informally referred to as the Short Spaced Order", 8 FCC Rcd. 7293 (1993)

In conclusion, Orion would ask the Commission to consider that:

- Automatic, integrated system environments require a different standard of desired to undesired signal co-channel protection, as compared to manual systems;
- Public Coast stations, should be entitled to parity in the application of a co-channel protection standard for automated CMRS type systems;
- Field experience, by system operators and manufacturers alike, and previous decisions by Commission regarding similar co-channel interference issues in other frequency bands, confirm the need for a more robust standard; and
- Instituting a higher standard will assist in system operation for both incumbents and new geographic entrants, and insure that Public Coast stations are able deliver an acceptable grade of service to the public, in competition to other CMRS services.

For the reasons stated above, Orion respectfully request that the Commission accept this Petition for Reconsideration and amend its Third Report and Order and Memorandum Opinion and Order on the institution and application of a co-channel interference standard for automated systems in the Maritime Public Coast station service.

Respectfully submitted



Fred Daniel d/b/a/ Orion Telecom
P.O. Box 9227
Newport Beach, CA 92658

Date: July 23, 1998

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